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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SCHWARTZ, JORDAN MARC

ART UNIT PAPER NUMBER

2873

DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,938

Applicant(s)

KISHIMA ET AL.

Examiner

Jordan M. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____

D tailed Action

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to because Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 2-4, 6, 8-9, 12, 14-15 and 18 (and their respective dependent claims) are objected to for the following reasons. Since the intended meaning could be determined from the specification and the Figures, 112 rejections were not made but instead these lack of clarity issues were raised in claim objections:

With respect to claims 2-3, 8-9, 12 and 14-15, the claimed "outer circumference portion of said second optical lens" lacks an antecedent basis and it is suggested that it be claimed more positively.

With further respect to claim 4, "positioned around said flat portion" lacks an antecedent basis and it is not clear as to what flat portion applicant is claiming. The assumed meaning is similar to what is claimed in claim 10 and it is suggested that applicant amend to claim similar to what is claimed in claim 10 i.e. "said first optical lens further comprises a flat portion...".

With respect to claims 6, 12 and 18, that part of the claim stating, "a second convex portion on the other surface facing said one surface" creates a lack of clarity since the second surface is not facing the first surface. The assumed meaning from what is set forth in the Figures and specification is "a second convex portion on the other surface opposing said one surface".

With respect to claim 6, that part of the claim stating, "center axes of said coinciding or substantially coinciding" lacks clarity. The assumed meaning is similar to what is claimed in claim 18 in terms of, "center axes of said first and second convex portions coinciding or substantially coinciding".

Claim Rejections - 35 USC § 112

Claims 1, 3, 5, 7, 11, 13 and 17 (and their respective dependent claims) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1, 5, 7, 11, 13 and 17, applicant is claiming “the outer circumference portion of said first optical lens and said second optical lens are fixed” or “are bonded” which renders the claim vague and indefinite. Specifically, with reference to claims 1 and 13, it is not clear if applicant is claiming that “the outer circumference of said first optical lens is fixed in place and said second optical lens is fixed in place” (which is the assumed meaning) or that “the outer circumference of said first optical lens is fixed in place and an outer circumference of said second optical lens is fixed in place” and the lack of clarity renders the claims vague and indefinite. Similarly the language of claims 5, 11 and 17 is indefinite and the assumed meaning is that the “the outer circumference of said first optical lens is bonded to said second optical lens (not necessarily bonded to an outer circumference of the second optical lens). Similarly with respect to claim 7 it is not clear if applicant is claiming the bonding of the outer circumference of the first optical lens to the second optical lens (the assumed meaning) as opposed to the bonding together of the outer circumference of the first optical lens to the outer circumference of the second optical lens.

With respect to claim 3, applicant claims “a facing surface of said outer circumference portion of said first optical lens and a facing surface of said outer circumference portion of said second optical lens are bonded together” which renders the claim vague and indefinite. Specifically, it is not clear if applicant means any facing surfaces or specifically the facing surfaces that are vertical or substantially vertical to the optical axis (the latter being the assumed meaning similar to claim 15). If the latter is the intended meaning then it is suggested, similar to claim 15, that applicant claim “the

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facing surface of said outer circumference portion of said first optical lens and the facing surface of said outer circumference portion of said second optical lens are bonded together”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1, 6 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Miura publication number 2002/0109925.

Miura reads on these claims by disclosing the limitations therein including the following: an optical system (Figure 5) comprising first and second optical lenses arranged to have coinciding or substantially coinciding optical axes (Figure 5 re elements “1” and “13”); the first optical lens has a convex portion serving as a convex lens and an outer circumference portion around the convex portion (Figure 5, lens “1”); a thickness of the outer circumference portion is greater than a thickness at the convex portion (Figure 5, lens “1” where the outer circumference which includes the protrusions on both the left and right sides of lens “1” provides the lens with a greater thickness than

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the convex portion of the lens); and a convex portion of the first optical lens (Figure 5, lens "1") faces the second optical lens (Figure 5 i.e. the convex portion of lens "1" that faces lens "13"). Both lenses "1" and "13" will inherently be fixed in place since they are being used in a playback apparatus for an optical disk. Miura further discloses a laser Figure 5, paragraph "0025", an optical system for focusing laser light onto an optical disk (Figure 5, paragraphs "0025-0026"); and a photodetector (paragraph "0025"). With respect to claim 6, Miura further discloses the second optical lens with two convex surfaces with their center axes coinciding (Figure 5, lens "13"). Any lens will inherently have an outer circumference portion and therefore the lens "13" of Figure 5 will inherently have an outer circumference portion. Furthermore, the lens "13" of figure 5 will inherently be fixed in place by its outer circumference portion since lenses are inherently fixed by outer non-optical portions such as the flat top and bottom portions of the lens "13".

Claim 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurihara patent no. 5,024,509.

Kurihara reads on these claims by disclosing the limitations therein including the following: a method of producing an optical system (column 1, lines 6 to column 2, line 7) comprising first and second optical lenses (Figures 3, 20, 29 and 33); the first optical lens has a convex portion serving as a convex lens (Figures 3, 20, 29 and 33, re lens 1 with the left surface as a convex surface); the first optical lens having an outer circumference portion positioned around the convex portion (Figures 3, 20, 29 and 33, re the uppermost projection portion of the lens such as projection "1a" of Figures 29 and

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33); a thickness of the outer circumference portion is greater than a thickness at the convex portion (Figures 29 and 33, re portion "1a" is thicker than the convex portion); and the outer circumference portion of the first lens bonded together with the second lens (Figures 3, 20, 29 and 33). Kurihara further discloses mounting the outer circumference of both lenses and positioning them so that their optical axes coincide (Figures 3, 20, 29 and 33); and mounting surfaces vertical to the optical axes (Figures 3, 20, 29 and 33).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura.

With respect to claims 2 and 14, Miura discloses as is set forth above including a flat outer circumference portion of the first optical lens facing the second optical lens (Figure 5, lens "1" with the flat portion of the left protrusion facing lens "13"). Miura does not disclose the second optical lens having a flat circumference portion facing the first optical lens. However, since applicant is not claiming the structure of the second optical lens then any lens within the playback apparatus of Figure 5 having a plano surface facing the disk side would inherently have a flat outer circumference facing the first optical lens. The examiner takes Judicial Notice that it is well known in the art of optical

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systems to employ lenses having a plano surface i.e. with optical correction on just one surface since such lenses are easier and cheaper to manufacture than lenses having optical correction on both surfaces. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the playback apparatus of figure 5 including a plano surface facing the disk and therefore including a flat outer circumference facing the first optical lens since it is well known in the art of optical systems to employ lenses having a plano surface i.e. with optical correction on just one surface since such lenses are easier and cheaper to manufacture than lenses having optical correction on both surfaces.

Claims 4, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura in view of Nomura et al.

Miura discloses as is set forth above but does not specifically disclose the outer circumference portion positioned around a flat portion and the thickness being greater than the thickness of the flat portion. Nomura et al discloses that a lens of almost identical structure to the lens "1" of Figure 5 of Miura (Figure 4 of Nomura et al) can comprise a flat portion between the convex portion and the outer circumference portion (Nomura et al Figure 4 re the flat portion between the convex portion "B" and the outer circumference portion "C") with the thickness of the outer circumference portion greater than the thickness of the flat portion based upon the manufacturing method of the lens (column 1, lines 10-42). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens "1" of Miura with the outer circumference portion positioned around a flat portion and the thickness being

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greater than the thickness of the flat portion since Nomura et al discloses that a lens of almost identical structure can comprise a flat portion between the convex portion and the outer circumference portion with the thickness of the outer circumference portion greater than the thickness of the flat portion based upon the manufacturing method of the lens.

Allowable Subject Matter

Claims 3, 5, 10-12, 15 and 17-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, with respect to claim 3, none of the prior art either alone or in combination disclose or teach of the claimed optical system comprising first and second lenses with coinciding or substantially coinciding optical axes, the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the thickness of the convex portion, the outer circumference portion of the first optical lens fixed in place and the second optical lens fixed in place so that the convex portion of the first optical lens faces the second optical lens, outer circumference surfaces of the first and second lenses facing each other and the facing surfaces as flat or approximately flat, a facing surface of the outer circumference of both lenses vertical with respect to the optical axis of their respective lenses, and specifically further with the

facing surfaces that are vertical being bonded together. Specifically, with respect to claim 5, none of the prior art either alone or in combination disclose or teach of the claimed optical system comprising first and second lenses with coinciding or substantially coinciding optical axes, the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the thickness of the convex portion, the outer circumference portion of the first optical lens fixed in place and the second optical lens fixed in place so that the convex portion of the first optical lens faces the second optical lens and specifically further with the outer circumference portion of the first optical lens bonded to the second optical lens via an intermediate member. With respect to claim 10, none of the prior art either alone or in combination disclose or teach of the claimed method of producing an optical system having first and second optical lenses with the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the convex portion, bonding together the outer circumference portion of the first optical lens to the second optical lens so that optical axes coincide or substantially coincide, and specifically further with the first optical lens comprising a flat portion and a thickness of the outer circumference portion greater than the thickness of the flat portion. With respect to claim 11, none of the prior art either alone or in combination disclose or teach of the claimed method of producing an optical system having first and second optical lenses with the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the convex portion, bonding together the outer circumference portion of the first optical lens to the second optical

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lens so that optical axes coincide or substantially coincide, and specifically further with the outer circumference portion of the first optical lens bonded to the second optical lens via an intermediate member. With respect to claim 12, none of the prior art either alone or in combination disclose or teach of the claimed method of producing an optical system having first and second optical lenses with the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the convex portion, bonding together the outer circumference portion of the first optical lens to the second optical lens so that optical axes coincide or substantially coincide, and specifically further with the second optical lens having first and second convex surfaces with the outer circumference portion positioned around the convex surfaces and the center axes coinciding or substantially coinciding. Specifically, with respect to claim 15, none of the prior art either alone or in combination disclose or teach of the claimed optical pickup comprising a laser, an optical system for focusing light onto an optical disk, a photodetector, first and second lenses with coinciding or substantially coinciding optical axes, the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the thickness of the convex portion, the outer circumference portion of the first optical lens fixed in place and the second optical lens fixed in place so that the convex portion of the first optical lens faces the second optical lens, outer circumference surfaces of the first and second lenses facing each other and the facing surfaces as flat or approximately flat, a facing surface of the outer circumference of both lenses vertical with respect to the optical axis of their respective lenses, and specifically further with the

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facing surfaces that are vertical being bonded together. Specifically, with respect to claim 17, none of the prior art either alone or in combination disclose or teach of the claimed optical pickup comprising a laser, an optical system for focusing light onto an optical disk, a photodetector, first and second lenses with coinciding or substantially coinciding optical axes, the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the thickness of the convex portion, the outer circumference portion of the first optical lens fixed in place and the second optical lens fixed in place so that the convex portion of the first optical lens faces the second optical lens, and specifically further with the outer circumference portion of the first optical lens bonded to the second optical lens via an intermediate member. Specifically, with respect to claim 18, none of the prior art either alone or in combination disclose or teach of the claimed optical pickup comprising a laser, an optical system for focusing light onto an optical disk, a photodetector, first and second lenses with coinciding or substantially coinciding optical axes, the first optical lens having a convex portion serving as a convex lens, an outer circumference portion with a thickness greater than the thickness of the convex portion, the outer circumference portion of the first optical lens fixed in place and the second optical lens fixed in place so that the convex portion of the first optical lens faces the second optical lens, the second optical lens has first and second convex portions with center axes coinciding and specifically further with the outer circumference portion of the second optical lens bonded to the outer circumference portion of the first optical lens.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (703) 308-1286. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Jordan M. Schwartz
Primary Examiner
Art Unit 2873
April 15, 2003